



*Assistive and Instructional Technology
Supporting Learners with Disabilities*

Universal Design for Learning: A Checklist for Early Childhood Environments

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Universal Design for Learning: A Checklist for Early Childhood Environments

The challenge to inclusive early childhood programs is to intentionally design environments to be responsive to all children's needs and to provide opportunities for demonstrating learning and growth in all areas. Principles of universal design for learning UDL are fundamental to this concept and underscore the need for flexibility and a degree of customization to all children, regardless of their individual abilities or learning preferences.

At the heart of every early childhood program is the daily curriculum; the routines and activities where children will interact and develop. The **learning environment** provides the daily opportunities for growth and development and must be constructed to support play based learning and exploration. Within a well-designed curriculum, early childhood educators implement intentional **teaching strategies** to meet the expectations of early learning standards, including language, literacy, and numeracy. High quality programs are intentionally structured and facilitated by teachers who provide appropriate scaffolding. The learning opportunities that adults design for young children help them build the foundations of skills and competencies.

A well designed, safe and responsive **Learning Environment**:

- Provides structure and predictability
- Gives children an opportunity to make choices and meet expectations
- Sees that children are responsible for caring for the equipment and materials
- Facilitates appropriate social interactions among children
- Promotes children's engagement; provides children with enough time
- Allows children to solve their own problems without intervention whenever possible
- Accepts children's effort to assert independence
- Communicates expectations in both verbal and non-verbal ways

The three principles of UDL are considered when creating an early childhood environment that is responsive to individual learners of diverse cultures, abilities, language and life experiences and that results in development across all domains. Embedded universal approaches, strategies, and materials support various learners as they interact and play in intentionally designed early learning environments including physical, social and temporal components.

The 3 Universal Design for Learning Principles include:

1. Choice of how to best understand information: Multiple Means of Representation (the "what" of learning)- present content in different ways
2. Choice of how to express what they know: Multiple Means of Action and Expression (the "how" of learning) – give learners different ways to show what they know
3. Choice of how to reinforce and motivate: Multiple Means of Engagement (the "why" of learning) – use multiple ways to motivate learners



The early childhood environment is designed to promote active experience-based learning. A rich and supportive learning environment provides materials and activities that support children’s interests, promotes purposeful play, and facilitates learning within and across all developmental domains (cognitive, physical, social, and emotional needs) and all curriculum content areas.

Learning Environments. There are three environmental components that support every child’s ability to learn: physical, social and temporal. Examples of UDL materials and strategies are offered below:

<p>Physical Environment includes the design of the physical layout of space, arrangement of furniture and resources, as well as lighting and floor coverings, and the creation and organization of learning centers. All children can safely access and actively engage in the learning opportunities indoor and out. Consider how you will construct and present activities and materials so they are arranged in provoking and inviting ways to encourage exploration, learning and inquiry. This arrangement of space + equipment is designed to promote children’s interaction (to play face to face, or side by side) and a variety of surface heights for floor play, standing, etc. Consider how you will arrange the physical environment, select equipment and materials, and plan activities for centers that contribute to children’s purposeful learning.</p>	
<p>Physical Environment UDL Elements</p> <ul style="list-style-type: none"> <input type="checkbox"/> The physical layout of space, furniture and resources in indoors/outdoors are accessible and safe (wide pathways, uncluttered floor, floor covering) <input type="checkbox"/> The physical space is set up so children can move freely yet promote safety <input type="checkbox"/> Active and quiet centers that promote uninterrupted play and work exist within the environment as well as a “quiet” space <input type="checkbox"/> There is a low noise level/minimal and appropriate visual stimulation <input type="checkbox"/> Furniture and equipment offers adjustable/multiple options <input type="checkbox"/> Varied seating options are available (small chairs, bean bags, inflatable discs) <input type="checkbox"/> Children choose how to use the range of materials within learning centers <input type="checkbox"/> Distinct learning centers have a range of materials and supports that are easy to access. <ul style="list-style-type: none"> <input type="checkbox"/> block area includes unit blocks, hollow blocks, vehicles, street signs, pencil, paper, books, people, pictures <input type="checkbox"/> art area includes various types of 	<p>Extended Supports + Technology</p> <ul style="list-style-type: none"> <input type="checkbox"/> Modify or change the tables/chairs to meet children’s needs (e.g., to make sure feet touch the floor and forearms rest on table), or use bouncy bands and inflatable discs to allow active movement <input type="checkbox"/> Use squares or pictures as targets on the floor so children know where they should line up or sit <input type="checkbox"/> Modify materials, such as brushes, to make them easier for children to hold (e.g., build up handle) <input type="checkbox"/> Make room for specialized mobility equipment (e.g., walker, power chair) or child-specific AAC technology (e.g., communication device) <input type="checkbox"/> Offer easy to use accessible items: light boxes with translucent objects, large, weighted or magnet blocks, inflated balls <input type="checkbox"/> Include specialized equipment (e.g., slant boards, loop scissors, hand over hand scissors) to help children be more independent <input type="checkbox"/> Have book holders, page fluffers and pre-recorded books available so all children can participate

<p>drawing/writing tools, clip boards, trays, storage bins, accessible scissors, paper weights, textures, sensory materials</p> <ul style="list-style-type: none"> <input type="checkbox"/> library area includes a variety of books (large books, cardboard, symbols, digital, iPad apps, recorded stories, etc); head phones (noise filtering + amplifying) and digital recorders <input type="checkbox"/> Materials are stored and children's work is displayed at eye level <input type="checkbox"/> Cubbies, shelves and room areas are labeled with photos/pictures/text in home language <input type="checkbox"/> Cooperative-use toys are available for pairs/small groups of children <input type="checkbox"/> Materials include adaptable, flexible technologies that provide extended options in learning centers 	<ul style="list-style-type: none"> <input type="checkbox"/> Include curved spoons/forks and non-slip bowls/plates at lunch time <input type="checkbox"/> Provide game spinners with single switches and adapted battery operated toys/games <input type="checkbox"/> Have apps available with similar learning center content so all children can participate in and benefit from similar learning opportunities: <i>Tea Party</i> (TOCA), <i>Art Maker</i> (ABC School), <i>Letter School</i> (Sanoma), <i>Mr. Potato Head</i> (Originator) <input type="checkbox"/> Provide iPad cameras and mobile microscopes for discovery learning + recording
<p>Rate your inclusion of the above elements in your current practice: 1 (few) 3 (some/sometimes) 5(many/often)</p>	<p>Rate your inclusion of the above elements in your current practice: 1 (few) 3 (some/sometimes) 5(many/often)</p>
<p>Notes/Ideas for Improvement or Change</p>	

The Social Environment: relationships and interactions between children/ teachers; teacher/ teacher; family/ center. The social environment welcomes the involvement of all families. Children need secure, warm and trusting relationships so they are confidently supported in their explorations and risk taking. Consider how you will assist children to make connections with others, develop friendships and regulate their behaviors; and how you will communicate the child's progress.

Social Environment UDL items

- Environmental tone is friendly, calm, supporting and welcoming
- Materials that support awareness of diversity; Photos of family + community events, culture and life experiences are represented
- Sensory materials and "fidget toys" are available that can support children in calming themselves are available
- A Job Chart helps children feel responsible as part of the group
- A child's home language is used throughout the curriculum.
- Choice boards provide ways for children to make choices on activities, materials and feelings
- Class/center rules (identified with children's input) are posted in an understandable format
- Materials + activities help children explore feelings and what to do in social situations

Extended Supports + Technology

- Create individualized visual materials to help children with social interactions (e.g., flip book, reward system); use apps such as *Choice Works* (Bee Visual) to design the supports
- Record messages (greetings, songs, finger plays, repetitive story lines, etc) on single and multiple message recordable communication devices. Picture symbols should relate to the message.
- Communication boards provide ways for children to answer questions, make choices, or offer comments
- Provide visual supports to help individual children interact with others; social stories, video modeling
- Sensory supports such as compression clothing, lap pads, weighted blankets, vibration, fidget toys, and chewies can help children focus and engage in activities

Rate your inclusion of the above elements in your current practice:

1 (few) 3 (some/sometimes) 5 (many/often)

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1 (few) 3 (some/sometimes) 5 (many/often)

Notes/Ideas for Improvement or Change

The Temporal Environment: the management of the daily structure of routines, activities, and transitions. Consistent routines help children to understand what is happening and for how long, what will come next, and when and how to change activities. Consider the way that you decide to use the time available in the program. Children need large blocks of time to develop play themes and more complex ideas and interactions

Temporal Environment UDL items

- Daily schedules and changes to the schedule are in photo/picture format
- Choice boards for selecting learning centers
- Charts + sign ups help to manage numbers in popular centers
- A mix of individual, dyad, small and large group activities are planned and flexible; children may engage more in smaller groups
- Active and quiet activities are balanced and sequenced
- Pacing of activities is appropriate and flexible
- Visual/auditory activity sequences are available to support independence
- Verbal and non-verbal transition cues (lights, music, sounds 5-minute warning) are present; Visual cues for line up activities. Graphic timers are available.
- Time is allowed within the schedule for children to revisit things that need further attention, or are not finished.

Extended Supports + Technology

- Create individualized visual materials to help children to take part in daily routines (e.g., activities books, first-then, reward system); use apps such as *First Then Visual Schedule* to design the supports
- Create personal picture schedules/flip book/recorded sequences for a child to know what happens next
- Choice areas are clearly labeled and relate to choice boards

Rate your inclusion of the above elements in your current practice:

1 (few) 3 (some/sometimes) 5(many/often)

Rate your inclusion of the above elements in your current practice:

1 (few) 3 (some/sometimes) 5(many/often)

Notes/Ideas for Improvement or Change:

Teaching Strategies. Intentional planning for the implementation of specific teaching strategies are based on the teacher’s understanding of child development, observing children, guiding learning and assessing progress. They apply a wide range of teaching strategies including direct teaching and supporting child initiated learning to meet the needs of all learners. Examples of UDL teaching strategies are provided below:

<p>UDL Teaching Strategies</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information is presented in multiple formats over time to meet the learning styles of young children (auditory, visual and kinesthetic learners) <input type="checkbox"/> A mixture of teacher-directed and child-initiated activities are planned <input type="checkbox"/> Explicit and supported instruction (modeling, coaching, or prompting) is provided as needed <input type="checkbox"/> Content is presented in a culturally relevant manner (puppets, dolls, dress up clothes, musical instruments, foods, cooking items, etc.) <input type="checkbox"/> Multi-sensory experiences (pictures/photos, puppets, objects, acting out) are used to present content to young children <input type="checkbox"/> Active learning + engagement through play is promoted <input type="checkbox"/> Daily content is presented in the form songs, stories, dramatic play, and art <input type="checkbox"/> Curricular goals are met through intentionally designed learning opportunities 	<p>Extended Strategies and Technologies</p> <ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate and use simple language to provide explicit instruction on what to do <input type="checkbox"/> Provide information in more than one way- e.g., both verbally and gesturing <input type="checkbox"/> Provide more time to complete an activity <input type="checkbox"/> Simplify an activity or break down tasks into smaller parts <input type="checkbox"/> Some children may need additional time to think about what a question means before they can respond. Wait 5 seconds before you repeat the question. <input type="checkbox"/> Describe and interpret children’s actions, facial expressions, gestures, and other non-verbal body language <input type="checkbox"/> Apply a system of cues and prompts <input type="checkbox"/> Provide many opportunities to practice new skills <input type="checkbox"/> Use peer buddies as models to help a child complete an activity <input type="checkbox"/> Use apps to customize or improve learning experiences <input type="checkbox"/> Cameras and apps can document knowledge + growth
<p>Rate your inclusion of the above elements in your current practice: 1 (few) 3 (some/sometimes) 5(many/often)</p>	<p>Rate your inclusion of the above elements in your current practice: 1 (few) 3 (some/sometimes) 5(many/often)</p>
<p>Notes/Ideas for Improvement or Change:</p>	

